Clinical Section

CASE REPORT

Sarcoma of the Thigh

From the Tumor Clinic
Winnipeg General Hospital

On March 1st, 1933, boy M.M., age 15, was presented at the Tumor Clinic at the Winnipeg General Hospital. In September, 1932, he had had an injury to the outer aspect of the lower end of his left thigh, just above the knee. In November he had a second injury at the same site. In December, 1932, a swelling appeared which had gradually increased in size until he presented himself at the General Hospital in February, 1933. At this time there was a swelling, 1½" in diameter, raised above the surrounding tissues about one-half inch. The skin over it was of a bluish-red color suggesting a chronic inflammatory lesion. The swelling was soft in consistence, and slightly tender. At this time it was incised but only blood was obtained. A specimen was removed for biopsy which was shown to be fibrosarcoma. The boy was presented at the Tumor Clinic for an opinion on the best type of treatment. Dr. Boyd described the growth as consisting of spindle-cells and showing many mitotic figures and stated that it was fibrosarcoma of very rapid growth. There was no evidence of the disease having spread either to the regional lymph nodes or to the lungs. A considerable variety of opinions were expressed as to the best method of treatment. A small minority were in favor of immediate amputation if the diagnosis was positive. Another group recommended radiation exclusively. The boy's parents absolutely refused to have him operated on so that it was no use considering amputation which probably offered him the only hope of cure.

A course of X-ray Therapy was given to the growth but this was followed by very little change in the appearance of the tumor. On the 21st March, under spinal anesthetic, the growth was exposed by reflection of the skin well beyond the margin of the growth. Skin flaps were sutured back leaving the tumor exposed in the open wound. X-ray treatment was then given there directly into the growth and the skin was then sutured back into place. The wound healed perfectly and the boy was discharged from the hospital on the 5th April. He reported back at the end of May and the wound was well healed and there was no sign of tumor whatever.

July 4, 1933, he again appeared and there was a suggestion of a recurrence. Eight days later, on the 12th July, there was no doubt of the recurrence as it had increased in size in the previous week. The boy was re-admitted to the hospital and on the 26th July the wound was again opened under spinal anesthetic and a further course of X-ray was given into the open wound. A satisfactory healing occurred again and he was discharged from the hospital on the 13th August.

On November 7, 1933, he reported back and this time there was a definite recurrence in the wound. He was shown at the tumor clinic again and his case was discussed at considerable length. There seemed to be a larger group that now favored amputation. The parents, however, still refused to have an amputation done. The boy reported back at the clinic frequently from November, 1933, to June 5, 1934. During this time the recurrence was enlarging, and the pain was becoming more severe. The patient's general condition was deteriorating.

He was again admitted on June 11, 1934, with quite a large recurrence but no sign of metastasis. On the 27th June a high amputation was done. This was eighteen months after the tumor first appeared. He reported back in September, 1934, with the stump well healed and his general condition greatly improved. He was seen again in December, 1934, and examination at this time was negative.

He reported back in February, 1935, with a definite swelling on the stump on the medial side, the original tumor having been on the lateral aspect. The question of further operation was discussed at the tumor clinic again on February 6th and a disarticulation was recommended and carried out. The boy made a good recovery from this and was completely relieved of his pain.

He was seen again on the 13th March, 1935, and a plate of his chest at this time showed two tiny areas in the lung that were considered as probably metastases. He remained in the hospital until his death which occurred on July 17, 1935.

The interesting points about this case are, first the injury, followed in a short time by the appearance of a malignant tumor. Quite a large number of cases have been seen at the tumor clinic which suggest very strongly that there is a relationship between trauma and malignancy. This boy was seen at a comparatively early stage and immediate amputation would have given him a fair chance of cure, if that is ever possible.

This confirms the experience in many similar cases, that radiation is of very little value in the treatment of fibrosarcoma. The members of the clinic are generally agreed that, in cases of sarcoma of the extremities whether arising in soft tissue or bone, amputation is valuable even if only palliative for the relief of pain. Amputation must be done in a region quite remote from the site of the tumor.

Kipling and the Doctors*

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If you go to our medical library and take down from the shelves a book entitled "The Story of a Surgeon," by Sir John Bland-Sutton, you will see as a frontispiece a photograph of the author. In the motor-brougham beside him, gazing at you directly but benignly from beneath his beetling brows, sits Rudyard Kipling; he of the jutting jaws and "gig-lamps." The time was October 1st, 1908; the occasion Kipling's arrival at Middlesex Hospital Medical School to present prizes.

In the preface which follows, the surgeon-author relates how on many occasions Kipling had prompted him to write in a personal form the Story of the Hospital. Kipling took the trouble to inscribe with his own hand on the flap of a portfolio, in quaint English, instructions for such a book. With his permission Bland-Sutton used this as a preamble for his book. I will not detract from your pleasure to be derived from reading it by quoting from it here.

Kipling, we may believe, was bound by ties of warm friendship to many medical men. Among them Bland-Sutton was one with whom he was for long on terms of intimacy. The great master of the short story shows his comprehension of our craft, and his appreciation of those who serve it, all through his writings, prose and verse. He never portrayed an ignoble member of our profession, yet never descended to mawkish adulation.

Something of the awe and mystery which once clung about the medicineman as viewed by his fellow-mortals has colored the writings of most authors. Yet superstitious reverence never hindered a Chaucer or a Shakespeare from taking a shrewd dig at erudite medical pomposity, while their honest tributes to doctors we may remember as well. Later dramatists, and eighteenth century novelists, sometimes selected a doctor for their low comic relief. With the Victorian novelists the doctor fared indifferently. He was a boor and a rowdy, or an arrogant ignoramus, as Scott, Dickens or Thackeray sometimes portrayed him; a moral weakling or a prig, as we may find him in stories of George Eliot and Trollope. Today's novelists assume an attitude of free and easy familiarity in the fields of medicine and surgery and with those who practise therein, and apply liberally the methods of what in their own jargon has been called the "debunking" school. Doubtless each of these writers had met with prototypes of such characters in their personal lives.

Rudyard Kipling stands alone among writers of whom we have knowledge, whose active writing life belongs to the Victorian, the Edwardian and Georgian periods, as an author who knew and portrayed doctors at their work, without distortion. His insight into the problems of medicine, his appreciation of the philosophy of medicine, his understanding of the doctors' way of looking at the world, and the principles upon which they act, is unparalleled among authors. Let us consider how this may be accounted for.

In his own words on several occasions he seems to have given us a large part of the answer. He told the students to whom he presented prizes at Middlesex Hospital that there were "only two classes of mankind in the world—doctors and patients." Speaking as one of the latter class, he says it is "your business to make the best terms you can with Death on our behalf. . . . It follows, therefore, that you . . . must be amongst the most important people in the world." The world "has long ago decided that you have no working hours that anybody is bound to respect. . . . Have you heard of any legislation to limit your output? Have you heard of any bill for an eight-hour day for doctors?" (It is apparent that his prophetic vision had not considered State Medicine or Health Insurance.)

Some Medical Stories

To Kipling the doctor was, like the Soudanese gentleman to whom he addressed a poem, "a first-class fighting man." His job is to fight the battle of Men against Death. Not alone by strategy in the field of preventive medicine, but with the tactics and weapons of therapeutic medicine. If Kipling's interest lingers more frequently on the latter phase, it is not merely because of its higher dramatic value, but because he knows that Death always wins the last hand. As Shakespeare makes Cymbeline say,

By medicine life may be prolonged, yet death
Will seize the doctor too.

But he knew, as none know better than those who have witnessed the sweep of epidemic disease in Oriental countries or in the field of war, what preventive medicine can and must do. Who of us that remember the South African war does not recall the terrible slaughter of typhoid and think of Bloemfontein? Writing of this many years later, Kipling said, "Our own utter carelessness, officialdom and ignorance were responsible for much of that death-rate . . . the organising and siting of latrines seemed to be considered 'nigger-work.' The most important medical office in any Battalion ought to be Provost-Marshal of Latrines." His unsparing and accurately-aimed denunciation of the sanitary situation there, and its results, could hardly have been bettered by a modern public health officer, and we would like to feel that some of the credit for the reform in this respect which we saw in a later war is his.

His remarks on venereal disease also indicates his modern view. "I came to realize," he says in speaking of his early years in India, "the bare horrors of the private's life, and the unnecessary torments he endured on account of the Christian doctrine which lays down that 'the wages of sin is death.' It was counted impious that bazaar

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prostitutes should be inspected; or that the men should be taught elementary precautions in their dealings with them. This official virtue cost our Army in India nine thousand expensive white men a year always laid up from venereal disease."

Once he wrote a fanciful story in prophetic vein, when thirty years ago he gave us a description of a night-flight from London to Quebec by dirigible at the end of the twentieth century. It is full of vivid photographic detail just as it might have been described by a bright young journalist, full of crackling phraseology. Nearing the Labrador coast early in the summer morning, they pass above another dirigible with cots and nurses in white uniforms on her decks. The officer on the control platform refers to the other ship as a "lunger." He explains, "Savages used to haul their sick and wounded up to the tops of hills because microbes were fewer there. We hoist them into sterilized air for a while."

There was an old astrologer-herbalist, Nicholas Culpeper. (You will find his book in our library, too.) He was a pet of Kipling's, and he became the hero of a story, "A Doctor of Medicine," Culpeper's argument, which commenced from an astrological false premise and led to a true conclusion by which he cleared plague from his village by exterminating the rats, is too lengthy and involved to repeat here. Let me recommend it for your great entertainment and edification. Thus did Kipling record triumphs of preventive medicine in olden times. Incidentally, you will also find in this story the directions for the Culpeper Cocktail, which you may wish to try when you are feeling low: "Waters, which I do not say cure the plague, but are excellent against heaviness of the spirits . . . white brandy rectified, camphor, cardamoms, ginger, two sorts of pepper, and aniseed." It is understood that the correct proportions of each are to be expressed by the abbreviation "q. s."

A copy of his book, "Rewards and Fairies," in which this story was included, was sent by Kipling to his friend Sir William Osler. In the same book was another story about a pioneer in clinical research and preventive medicine—Laennec. The story, "Marklake Witches," tells how the young Laennec, himself a victim of pulmonary disease, lived as a French prisoner-of-war in an English household. He collaborates with an unorthodox healer in the village in treating the phthisical daughter of his host. She is tricked into breathing draughts of fresh air when they order her to prop her window open with a charmed stick of maple sixteen inches long, one inch for each year of her age. She must stand in front of this window five times daily, fasting, repeat the names of the Twelve Apostles, drawing her breath in through her nose before each name, and letting it out slowly through her pretty little mouth after the name. At the same time Laennec and his colleague are experimenting with little wooden trumpets. They place their bells against each other's chest, listen at the other end, and compare notes. They manage to bribe a few villagers to let them listen to their chests. Superstition soon runs riot, one man is dying from stitches in his side where the trumpet was placed; it is said that "it left round witch-marks on people's skins, dried up their lights, and made 'em spit blood, and threw 'em into sweats." The outraged village doctor who had lost cases to the unholy pair said they had "been impudently prying into God's secrets by means of some papistical contrivance." Thus did Kipling dramatize the origin of the stethoscope.

The Culpeper story was followed in the book by a set of verses, from which we quote some lines that show again how it was the humanity and bravery in the fight waged by the medicine-man that appealed especially to Kipling:

Wonderful little, when all is said,
Wonderful little our fathers knew,
Half of their remedies cured you dead—
Most of their teaching was quite untrue—

Yet when the sickness was sore in the land,
And neither planet nor herb assuaged,
They took their lives in their lancet-hand
And oh, what a wonderful war they waged.

Excellent courage our fathers bore—
Excellent heart had our fathers of old.
None too learned, but nobly bold
Into the fight went our fathers of old.

But natural results follow natural causes, and Kipling has amused us in his verses entitled "Natural Theology" by showing how primitive, pagan and mediaeval man sought supernatural causes for ordinary phenomena, while modern scientific investigation has placed our remedies in our own hands.

PRIMITIVE

I ate my fill of a whale that died
And stranded after a month at sea . . .
There is a pain in my inside.
Why have the Gods afflicted me?
Ow! I am purged till I am a wraith!
Wow! I am sick till I cannot see!
What is the sense of religion and faith?
Look how the Gods have afflicted me!

PAGAN

How can the skin of a rat or mouse hold
Anything more than a harmless flea? . . .
The burning plague has taken my household.
Why have the Gods afflicted me?
All my kith and kin are deceased,
Though they were as good as good can be.
I will out and batter the family priest,
Because my Gods have afflicted me!

MEDIAEVAL

My privy and well drain into each other
After the custom of Christendie. . . .
Fever and fluxes are wasting my mother.
Why has the Lord afflicted me?
The Saints are helpless for all I offer—
So are the clergy I used to fee.
Henceforward I keep my cash in my coffer,
Because the Lord has afflicted me.

CONCLUSION

This was none of the good Lord's pleasure,
For the spirit He breathed in Man is free;
But what comes after is measure for measure,
And not a God that afflicteth thee.
As was the sowing so the reaping
Is now and evermore shall be.
Thou art delivered to thine own keeping.
Only Thyself hath afflicted thee.

Medical Friends

Of Kipling's personal friendship with doctors something has been said. One of his earliest medical friends must have been Dr. James Conland of Brattleboro, Vermont. After some financial reverses Kipling and his newly-married wife had gone to live in a cottage on the estate of her grandfather on the outskirts of Brattleboro. She was attended here in her first confinement, December, 1892, by Dr. Conland. In his posthumously-published autobiography Kipling speaks of him as "the best friend I made in New England." He was probably ten years or more older than Kipling, having graduated from the University of Vermont in 1878. Kipling says that Conland had served in the cod-fleet when he was young, and through his influence the writing of "Captains Courageous" was begun. Their adventures about Boston harbour picking up necessary local colour is described, and the author says: "My part was the writing; his the details. . . . Conland took large cod and the appropriate knives with which they are prepared for the hold, and demonstrated anatomically and surgically so that I could make no mistake about treating them in print." Conland also played him a trick to extend his familiarity with fishing, by sending him "out on a pollock-fisher, which is ten times fouler than any cod-schooner, and I was immortally sick, even though they tried to revive me with a fragment of unfresh pollock."

Many years later, when what he calls a "Super-film Magnate" was negotiating with him for the film rights of this book, Kipling innocently asked if it was planned to introduce much sex-appeal into the great work. On being told "Why, certainly," he went on to explain that a happily married lady cod-fish lays about three million eggs at one confinement. Sex appeal on such a super-colossal scale rather floored the magnate, and Kipling prayed that wherever Conland, long since dead, might be, he may have heard.

Kipling, it may be observed here, retained something of late Victorian reticence upon some subjects. As he says in his poem of 1894, extolling the old "Three-Decker" novels, whose passing he seemed to mourn, with never a suspicion of the multi-decked Noah's Arks and their strange and varied cargoes yet to come:

"We asked no social questions;
We pumped no hidden shame;
We never talked obstetrics
When the Little Stranger Came."

Dr. Conland, Mrs. Kipling's accoucheur, Kipling's beloved friend and boon companion in sailors' eating houses on the Boston waterfront, veteran of the Banks fleet, was a man of many parts and wide interests. He was a member of the Vermont State Tuberculosis Commission, and served two terms as a member of the State Legislature. He died in 1903.

Of Bland-Sutton mention has already been made. He evidently became Kipling's personal medical attendant, for he mentions in connection with his being created LL.D. of St. Andrews in 1923, in the same year in which Kipling became rector of this university, that Kipling had been seriously ill that year and he had operated upon him.

Of the familiar footing on which they were with each other a comical story related by Kipling gives evidence. On one Boxing Day Bland-Sutton came down to visit him at his home in Sussex, "very full of a lecture he was about to deliver on 'gizzards'." He mentioned that a certain authority had said that if you hold a hen to your ear you can hear the click in its gizzard of the little pebbles that help digestion. Most of us would be content to nod acquiescently and say, "So-and-so's authority, no doubt that's true." This is just what Kipling did, although it was his usual habit to verify his own references. But Bland-Sutton, after an uneasy silence, asked him if he had any hens about. Remorselessly, then, he worried Kipling into taking him down to the henhouse, catching an outraged pullet, soothing her while he took her pulse. (Can't you see the picture!—the most celebrated author of his time and the president of the Royal College of Surgeons standing out in the wintry day solemnly taking the pulse of a pullet!) The pulse-rate was duly recorded as one hundred and twenty-six. Then —"She clicks alright," said the surgeon. He made the author listen, too, who opined there was enough click for a lecture. But—"Wait a bit," called the surgeon, "let's catch that cock. He'll click better." They caught him after a loud and long chase, and he clicked like a solitaire-board. Full of indignation, and with ears full of parasites, Kipling stalked off to the house, and the fun escaped him until later.

It is easy to understand how Sir William Osler and Kipling could appreciate each other. Osler, with his love of whimsy, his highly developed imaginative faculty, his warm humanity, his entry into the hearts and minds of children, could not but recognize a kindred spirit in Rudyard Kipling.

It is possible that their friendship commenced from the time that Kipling was Osler's guest in his home at Oxford for the great gathering there in June, 1907, when Kipling and Mark Twain were among those who received degrees. Possibly Osler's old friend, Janeway of New York, who had attended Kipling in a serious illness some eight years before, had made them acquainted before this. There are many references to show what an admirer of Kipling's stories Osler had been, and at Oxford he speaks of him as "such a

jolly fellow, so full of fun and with an extraordinary interest in everything."

Three years later, in 1910, Osler received a copy of "Rewards and Fairies," inscribed to him with the quotation: "Excellent herbs had our fathers of old," and with it a note:

"Herewith my book of Tales. I wouldn't bother you with it except for Nick Culpeper and Laennec, for whom I feel you are in a way responsible."

How quickly it was assayed and its gold put into circulation by Osler is apparent from the fact that a few months later, in an address which he gave at Reading when unveiling memorials to the first and last abbots of Reading, he quoted a stanza from what he styled Kipling's "splendid poem, 'Our Fathers of Old'." Again, when he delivered the presidential address to the Bibliographical Society in January, 1914, he quoted another stanza from this poem.

In June, 1914, there was a Roger Bacon celebration at Oxford. Osler asked Kipling to come and stay with him and to recite something of his own composition appropriate to the occasion at a lunch at Merton College. Kipling was unable to accept, but some lines from his reply are amusing and characteristic:

"I can't tell you how shocked I am to find the practice of medicine at Oxford (Roger's own university) so grossly behind the age. It was Galen who laid down that 'anger at meat' (by which he meant all mental emotion save of the mildest) is the mother of evil; and here are *you* —Regius Professor—counselling me to recite my own verses 'at'—not before or after, but *at*—a bountiful meal. . . . Nicholas, who could write even if he couldn't cure for nuts—says at the beginning of his Herbal, 'I knew well enough the whole world and everything in it was formed of a composition of contrary elements, and in such harmony as must needs show the wisdom and power of a great God.' That seems to me to cover Roger Bacon's outlook and I present it to you for a quotation."

Finally, when death seized the great doctor too, it was a story from the Second Jungle Book, "The King's Ankus," which Archie Malloch read to him on one of his last nights alive, as he lay in his darkened room thinking of his lost son.

Kipling's Use of Medical Details

It has been noted by his critics and reviewers that Kipling was a man of enormous versatility. "He proved . . . that he could enter into the minds of sailors and schoolboys and animals, besides giving something very like consciousness to machines, with as much facility as he could enter into the minds of soldiers, Hindoos and the members of Anglo-Indian society." It is no wonder, then, that the minds of doctors were laid open to him; the only wonder is that this fact has not been more widely commented upon. It seems to us one of his most notable characteristics, yet examination of a fairly recent bibliography fails to show that it has been noticed. His "love of the masculine life . . . is the underlying and impelling influence. . . . He took things as he found them, the men who worked at manly crafts like soldiering and sailoring and engine-driving." Had the reviewer's knowledge and interests been as wide as those of his subject, he would have added "and doctors." Kipling thought of the doctor as a man, as a fighter and a humanitarian, often armed with inadequate weapons, but brave and many times displaying an innate wisdom of which he himself hardly was aware. Often a lone fighter, whose prayer Kipling formulated in the lines:

"Help me to need no aid from men
That I may help such men as need!"

Another critic says of him, "He has what cannot be acquired by any trick on earth—the grip on human life." He was "that man who looked at life with a huge and perilous curiosity."

These being the marks of the man, and his intimate acquaintance what it was, it is far from surprising that the behaviour of sick people and the phenomena of disease should be matters for his keenest observation and his most vivid graphic portrayal. His virility and sense of humour always saved him from what we call the morbid, in his writings. If the statement of an English literary critic, published shortly after his death, "He sees the savage in man and that it is not far below the surface, and he is disposed to question the benefits of civilization," were true, it would dispose of our claims for Kipling. But he was no cynic; that species of schoolboy greensickness had left no trace upon him. He never questioned the benefits of civilization, at least in respect to the advance of medical knowledge.

Kipling could see even what most lay writers miss, and—alas for our profession—many of us may lose: how medical men follow their light with the keen joy and pride of craftsmanship. He knew the Love of the Game, whether in Art or Science. Look again at such stories as "The Tender Achilles," and "Unprofessional." His lines on the Artist's Heaven we may take for ourselves, for what physician or surgeon worthy of his calling is not an artist?

"And only the Master shall praise us,
And only the Master shall blame,
And no one shall work for money,
And no one shall work for fame;
But each for the joy of the working,
And each in his separate star,
Shall draw the Thing as he sees It,
For the God of Things as They Are."

We are not unaccustomed to medical themes and pictures in the works of modern writers. Some are so replete with their anatomico-physiologico-psychopathological learning, so glibly accurate with their technical terms, that our recreative reading is spoiled by pathology dragged upon the stage in and out of season. Some of this writing is propaganda, some iconoclastic and some specimens which, curiously enough, have suffered more at the hands of lay than of medical reviewers,

come under the description of washing dirty linen in public.

While Kipling's medical interest was in doctors rather than in patients, he had a genius for familiarizing himself with fields of intense activity. A sick man was to him a scene of warfare, a stronghold besieged or a hard-fought battlefield. Like his friends the Nilghai and Torpenhow in "The Light That Failed," he was drawn towards the arena with notebook and sketchblock.

He gave us some wonderful pictures. Many of them were drawn from his life with soldiers in peace and at war. Sometimes it is only a random snapshot. What had he in mind, for instance, when he described a Boer farmer's idiot son?—"His head was hairless, no larger than an orange, and the pits of his nostrils eaten away by a disease. He laughed and he slavered . . ."

He described cholera in an Indian troop-train on a siding until you smell it, and see, in Mulvaney's words, "The men . . . goin' roun' an' about like dumb sheep, waitin' for the nex' man to fall over," wholly without technical language.

The long monologue of the half-caste opium smoker in the story, "The Gate of the Hundred Sorrows," is a tonal masterpiece. The key is one throughout, fraught with drowsiness and apathy; the colour a flat gray through which Chinese reds and yellows show dully, and you are looking at the world through the eyes of one saturated with the poppy.

As a comic relief we cannot refrain from calling attention to one of Kipling's funniest stories, in which he describes—nay, invents—a dermatologic syndrome. It gives him an opportunity to dig our sobersides in the ribs with an impudent and friendly-humorous elbow, when he portrays the puzzlement of the doctors—including the dermatologists—in the face of a bizarre skin eruption with no suggestions or clues. An experimenter with chemical fertilizers is careless in his disposition of residues, and produces an eruption, quite unwittingly, among the neighbouring rural population of a pruritic, non-contagious character, appearing as orange and coppery-green blotches which seriously embarrassed the panel-doctors. Even white pigs were affected. The doctors "asked where they had been and what they had eaten. They had, it seemed, been in ever so many places, and by the way had eaten everything in Leviticus and out of it." (Which shows how much may be learned from asking for history in such general terms.) The tendency, in brand-new diseases, to treat them empirically with the latest specific discovered for some other disease Kipling was acquainted with, and he made the B.M.A. recommend the exhibition of chaulmoogra oil. The source of the trouble is discovered by the inventor's scientist-son and his doctor-friend, and, after taking necessary steps to end the epidemic, they are enabled to utilize it hilariously to settle scores with a local snob and leader of opinion.

As a tragic recountal of the history and course of a disease, Kipling's *chef d'oeuvre* is found in "Love-o'-Women." Larry Tighe, gentleman-ranker of the Black Tyrone, "cud put the comether on any woman that trod the green earth av God." Mulvaney, one of the Soldiers Three, who tells the story, was transferred from this regiment, and some years later, after a battle, meets Tighe again. He is now known by his nickname. Mulvaney notices first that "whin he got up off the ground he shtaggered a little, an' laned over all twisted." In subsequent patrol-work, and when the camp in the Khyber Pass is being sniped by Pathans, Mulvaney soon learns that for some reason "Love-o'-Women" is deliberately courting death. He saves his life more than once and is cursed for his pains. Mulvaney again observes, "He set off from the halt wid a shunt as tho' he was bein' kicked from behind . . . wint back to his tint wid that quare lurchin' send-off that I cud niver understand." The man was being plagued by remorse: there had been a woman, one out of the scores to whom he had given no second thought; but there was something more. "Iv'ry time he got up afther he had been settin' down or wint on from the halt, he'd start wid that kick and traverse . . . his legs sprawlin' all ways to wanst. . . . Wan day . . . he stopped an' struck ground wid his right fut three or four times doubtful. . . . 'Is that ground?' said he . . . up comes the docthor. . . . Love-o'-Women starts to go on quick, an' lands me a kick on the knee while his legs was gettin' into marchin' order. . . . ' 'Tention,' says the docthor; and Love-o'-Women stud so. 'Now shut your eyes,' sez the docthor. 'No, ye must not hould on by your comrade.' ' 'Tis all up,' sez Love-o'-Women, thryin' to smile, 'I'd fall, docthor, an' you know ut.' We wint back together, an' I was dumb-struck. Love-o'-Women was cripplin' an' crumblin' at ivry step. He walked wid a hand on my shoulder all slued sideways, an' his right leg swingin' like a lame camel. . . . In hospital but two days later . . . I shuk hands wid him, an' his grip was fair strong, but his hands wint all ways to wanst, an' he cud not button his tunic. . . . 'But fwhat ails him, docthor?' I sez. 'They calls it Locomotus attacks us,' he sez, 'bekaze,' sez he, 'ut attacks us like a locomotive, if ye know fwhat that manes. An' ut comes,' sez he, lookin' at me, 'ut comes from bein' called Love-o'-Women.'

" 'Your're jokin', docthor,' I sez.

" 'Jokin'!' sez he. 'If ever you feel that you've got a felt sole in your boot instid av a Government bull's-wool, come to me,' he sez, 'an I'll show you whether't is a joke.'

"You would not believe us, sorr, but that, an' seein' Love-o'-Women overtuk widout warnin', put the cowld fear av Attacks us on me so strong that for a week an' more I was kickin' my toes against stones an' stumps for the pleasure av feelin' the hurt.

"An Love-o'-Women lay in the cot . . . and he shrivelled like beef-rations in a hot sun, an' his eyes was like owls' eyes, an' his hands was mut'nous." Of how his end came we are not

concerned here, but the story, medical interest apart, is worth many readings. It was written, we should remember, over thirty years ago when Schaudinn's discovery was very recent news in medical circles, and the spirochaete was not yet fully established in the minds of all as the cause of tabes. Kipling's story could not have been written at that time had he not been made acquainted by authority with the fact that locomotor ataxia is syphilis of the spinal cord.

There are many other things in Kipling's short stories, his verse, and even in his few novels, of special interest to the medical reader. You will be repaid in more ways than one by watching for them as you read. You may possibly, if you are crank enough, read into them something that the author had not thought of.

For instance: There are two women who are major characters in the novel, "The Light That Failed." Dick Heldar, the hero, is in love with one of them, Maisie, whom he has known as a child. She shares a flat with the other, whom we know only as "the red-haired girl." Maisie lets Dick take her to dinner and on day-excursions to the sea-side, but holds herself aloof from his warmer advances. He must not interfere with her desired career in the studio. The "red-haired girl" says little to Dick, and he is unaware of her. She releases her emotions inspired by him in bitter castigation of Maisie for her feline acceptance of Dick's bounty. Maisie goes away, and Dick goes blind. Sun-glare in the desert and a sword-blow on the head in a Soudanese melee years past have combined to produce optic atrophy. He manages to get back to the Soudan, where the Mad Mullah has risen again, and meets a carefully-planned death by an enemy bullet between his sightless eyes. Not much of a story, perhaps, but Kipling was not made famous by his novels. An endocrinologist might lead us on an interesting speculation over how the course of events turned upon sex-hormones, and how a judicious exhibition of certain ductless-gland extracts might have made Kipling say, as he was used to, "But that is another story."

Now some of you who were at McGill in 1913 may remember how in those dark pre-endocrine days Sir Arbuthnot Lane once lectured before the two senior years on the redundant colon and "Lane's kink." His description of the unfortunate young female thus afflicted was most affecting and picturesque. A sallow skin, a pimply chin, flat breasts, partial amenorrhoea, chronic dyspepsia and colonic stasis were not all of her troubles. Her disposition was frigid. The opposite picture of the young lady who had either been short-circuited, or who had never stood in need of such ministrations, was easily imagined. She had all, and was all that her sister was deficient in. Then he turned to "The Light That Failed" for a classical illustration in the persons of Maisie and the "red-haired girl." The latter had been blessed with a short taut transverse colon, and hence no inhibitions. Poor Maisie, on the other hand, according to the eminent surgeon, had a colon that festooned and draped itself all over her cold little insides, hence her and Dick's tragedy.

But would it not have been sad had Sir Arbuthnot not met her before Rudyard Kipling heard of her, and short-circuited her?

Medical Library University of Manitoba

"Recent Accessions"—
September 1 - December 10, 1937.

Bastedo, W. A.—"Materia Medica, Pharmacology and Therapeutics" 4th ed.
Philadelphia, Saunders Co., 1937.

Beaumont, G. E.—"Medicine; Essentials for Practitioners and Students" 3rd ed.
London, J. & A. Churchill Ltd., 1937.

Brahdy, L.—"Trauma and Disease," by L. Brahdy and S. Kahn.
Philadelphia, Lea & Febiger, 1937.

Canada—Statistics, Bureau of, Seventh Census of Canada, 1931—gift.
Vol. 2, Population by areas, 1933.
Vol. 3, Ages of the people, 1935.
Vol. 4, Cross-classification, 1934.
Vol. 6, Unemployment, 1934.
Vol. 7, Occupations and industries, 1936.
Vol. 8, Agriculture, 1936.
Vol. 9, Institutions, 1935.
Vol. 10, Merchandising and service, Pt. 1, Retail Merch. trade, 1934.
Vol. 11, Merchandising and service, Pt. 2, Retail service, Wholesale trade, 1934.

Cecil, R. L.—"Textbook of Medicine" 4th ed.
Philadelphia, W. B. Saunders Co., 1937.

Coburn, A. F.—"Factor of Infection in the Rheumatic State."
Baltimore, Williams & Wilkins Co., Ltd., 1931.

Cole, W. H.—"Textbook of General Surgery," by W. H. Cole & R. Elman.
New York, Appleton-Century Co. Inc., 1936.

Davidoff, L. M.—"The Normal Encephalogram," by L. M. Davidoff and Cornelius G. Dyke.
Philadelphia, Lea & Febiger, 1937.

Special Articles and Association Notes

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Survey of Medical Statistics in Manitoba

So far as we are aware, no comprehensive survey of general morbidity statistics has ever been made in Canada. While mortality statistics have been collected for years, any records of the incidence of various illnesses have been of only limited statistical value.

Since the plan for the medical care of the unemployed in the City of Winnipeg has been in operation, there has gradually been accumulating figures with regard to the incidence of illness among a fairly large urban population amounting to between twenty-five and thirty-five thousand people over a period of several years (average 30,000). Although these statistics are very valuable they refer only to an urban population. For some time both the Department of Health of the Province of Manitoba and the Manitoba Medical Association have been of the opinion that a comprehensive group of general morbidity statistics from representative rural areas in Manitoba would be of great value.

For several months negotiations have been going on and preparations for this study are now nearing completion. The Dominion Department of Pensions and National Health agreed to make a contribution towards defraying the cost of this survey. The Rockefeller Foundation was impressed by the statistics being collected from the medical service for the unemployed in the City of Winnipeg. Dr. Ferrell of the Rockefeller Foundation visited Winnipeg and examined the proposed plan for collecting statistics in rural Manitoba. After this enquiry the Foundation finally agreed to make a large contribution for the purpose of initiating this survey. The Department of Health and Public Welfare of the Province of Manitoba are contributing to the fund also. There remained a portion of the estimated expense to be made up, and it will be seen from the minutes of a special meeting of the Executive of the Manitoba Medical Association reported elsewhere in this *Review,* that the medical profession have arranged to make a contribution.

At the same time that the survey of morbidity statistics is made, there will also be a survey of maternal statistics.

The fund supplied by the medical profession will be used to help pay a bonus to the practitioners concerned for the work entailed in filling in the required forms.

For the purposes of the survey of morbidity statistics, it is proposed to use the Municipalities having municipal doctors, which territory will include the Municipalities of Clanwilliam, Minto, Strathclair, Daly, Saskatchewan, Cartier, part of the Municipality of Argyle, town of Rapid City and the town of Rivers. This will give a total population of approximately fifteen thousand people situated in representative areas of the Province and containing groups of various national origins.

The general morbidity survey will be carried out over a two year period.

It is proposed to use statistic forms similar to those used in collecting data in connection with the medical care of the unemployed in the City of Winnipeg, and a similar method of computing the figures by means of the Hollerith System will be adopted.

In conjunction with this study of illness, there will be carried on simultaneously by the same personnel a study of all pregnancies in Manitoba during the course of a year. Material for this study will be obtained by the use of forms completed by the attending physician.

The organization is to consist of a specially trained medical officer with statistical knowledge; two public health nurses, one with statistical knowledge; and an office clerk. The direction of the studies is to be under the Department of Health and Public Welfare of the Province, and it is expected that the headquarters of the personnel will be situated in Winnipeg with office space situated as closely as possible to the Vital Statistics Division of the Department.

The medical director and one public health nurse, together with travelling expenses, are being supplied by the Dominion Government. The Province is supplying one nurse, office facilities, and a sum towards reimbursing physicians for the completion of the necessary forms. The Rockefeller Foundation is contributing money for the maintenance of the staff, compilation of statistics, and certain funds towards the payment of physicians. The fund from the medical profession will be applied toward payment of physicians for completion of the returns.

The Manitoba Medical Association will collaborate with the Department of Health and Public Welfare in the arrangements for this survey. The Chairman of the Committee on Maternal Welfare of the Canadian Medical Association and the Manitoba Medical Association and a group of obstetricians, are assisting in the preparation for the prenancy study. The Chairman of the Committee on Sociology of the Manitoba Medical Association is advising in reference to the study of morbidity statistics. The Deputy Minister of Health will meet the medical profession in the areas concerned and explain in detail the purposes and methods of the study.

The co-operation in this survey by the Manitoba Medical Association is not to be construed as a preparation by the profession for state health insurance, or an encouragement in this direction; it is merely an insurance against the initiation of some form of state health insurance based on inadequate knowledge. The chaotic condition which has resulted from the premature initiation of state health insurance elsewhere, can only be avoided by a careful survey of the field of statistics, and it is the responsibility of the medical profession, both to themselves and to the public to see that such fundamental studies are carried out.

When this survey is completed there will then be available information with regard to morbidity statistics among a large urban population in Winnipeg, and among representative rural groups, and also maternal statistics. These, together with the available mortality statistics, should form a valuable body of medical statistics. —C.W.M.

Winnipeg Unemployment Relief Medical Service

MEDICAL ADVISORY BOARD

Criticisms of the decisions of the Medical Advisory Board are quite reasonable, since it is frequently impossible to give in detail all the reasons for those decisions. However, a few words of explanation may assist.

The Board consists of four members, Dr. Douglas (Chairman) and Dr. Harvey representing the City, Dr. Moorhead, and a member of the Committee on Sociology serving in strict rotation, representing the profession. The Committee will not act as a clinical board, because it can get all the necessary assistance from experts or specialists; the Board can only approve or refuse the doctor's recommendation; under no circumstances will it offer him advice, further than to forward a consultant's written opinion. From time to time a member of the Unemployment Relief Committee of the City Council sits in as a visitor, to satisfy himself that the work is done efficiently, and that there is no evidence of laxity especially in guarding the finances of the City, due allowance being made for the welfare of the citizens. No criticism of the work of the Board has ever been made by such a visitor.

In addition to expert advice mentioned above, the Board is usually granted the privilege of studying hospital records of patients who may have attended O.P.D's., or been in the wards of hospitals over a period of years and under several doctors. It is apparent that the patient does not always give this information to his attending doctor.

In many cases the Board is able to authorise an operation without assistance; for instance, a request for a thyroidectomy accompanied by a good clinical description of a toxic condition, is approved at once. The difficulties are associated with a poor history and record of findings; the only way out is to request a consultation. Consultants are nominated in rotation from the roster of specialists supplied at the inauguration of the relief scheme. The attendant has the privilege of which he frequently avails himself of nominating the consultant. In gynaecological cases, a gynaecologist's opinion is usually obtained. If a general surgeon proposes to do a laparotomy on a woman where the diagnosis is in doubt, a gynaecologist's opinion may be sought. If the laparotomy is to be done on a patient who has already had two or three operations without benefit, an internist may be asked to investigate the possibility of some general constitutional disease.

There are probably two consultations for every three serious or difficult cases presented to the Board. In addition, recognised leaders in specialties are kind enough to give their opinion on occasions when the Board is still in doubt as to what is best for the patient's welfare. It is apparent that the Board's decisions cannot always appear reasonable to the attending physician, but it is equally apparent that the success of the Winnipeg medical relief scheme has been due to the co-operation and the loyalty of the men who are attending the sick. —E. S. M.

Executive Meeting

Minutes of a special meeting of the Winnipeg members of the Executive of the Manitoba Medical Association held in the Medical Arts Club on Monday, February 7th, 1938, at 12.30 noon.

Present.

Dr. C. W. Burns (Chairman)
Dr. Digby Wheeler
Dr. S. G. Herbert
Dr. W. W. Musgrove
Dr. E. W. Stewart
Dr. E. S. Moorhead
Dr. A. S. Kobrinsky
Dr. W. G. Campbell
Dr. C. W. MacCharles (Secretary)

Survey of Medical Statistics in Rural Areas.

The President explained that an opportunity existed to carry out this survey.

The Rockefeller Foundation has been interested in the work we are doing in Winnipeg towards collecting morbidity statistics in the group of people cared for by the Unemployment Relief Medical Service. They are now prepared to demonstrate their approval by making a grant of money spread over two years, for the purpose of carrying out a morbidity survey in a rural area, and also a survey of maternal morbidity and mortality over the whole province. The combined surveys will cost in the neighborhood of $39,000, financed mainly by the Rockefeller Foundation, the Dominion and Provincial Governments. The medical profession is not represented. The maternal survey is fully financed.

It is proposed to carry out the general mobidity analysis in seven municipal doctor areas of the province where there are municipal doctors. The funds will provide for a whole time supervising medical officer, clerical assistance, nurse, travelling expenses, etc. The municipal doctors will be requested to supply records, somewhat similar to those used in the Winnipeg medical relief scheme, for all illnesses. These doctors may reasonably contend that this extra work was not included in their contract, and it is felt that some recognition of their services is necessary, probably in the shape of a bonus of $300.00 each per annum.

The representatives of the Rockefeller Foundation are not disposed to furnish the amount required for this service. The Department of Health and Public Welfare of the Province of Manitoba will put up one-half of approximately $4,000 required for this purpose. An appeal was made by the Committee on Sociology to officers of The College of Physicians and Surgeons for the remainder, but they were informed that no meeting of the Council would be held before May, a date too late for the inauguration of the plan; that the matter was not of sufficient importance to justify a special meeting, and that no opinion could be expressed in the meantime as to the likelihood of the request being granted.

The Committee on Sociology were of the opinion that the matter is urgent. If there is no medical representation in the scheme, then we shall not have access to the information obtained, information which may be of great value to us should a government propose a health insurance plan. Your Committee feel that The College of Physicians and Surgeons is the logical body to undertake this duty. In the Medical Act we find the following clause:

> "The Council may also expend moneys for encouraging interest in and knowledge of medical and surgical science and practice, and for purposes deemed to be for the general advantage of the medical profession and the members of the college."

The College of Physicians and Surgeons draws its revenue from every doctor in the province; unlike the Manitoba Medical Association, Winnipeg Medical Society and Committee on Sociology, which are supported by groups.

The Committee on Sociology suggest that the Manitoba Medical Association might guarantee the necessary fund of $2,000.00, and possibly part of this sum might be obtained from the reserve fund from the Winnipeg Unemployment Relief Medical Service.

It was explained that it was understood that the problem of health insurance was to be considered by the Rowell Royal Commission.

Dr. Musgrove asked what benefit would the profession get from the survey. Dr. Burns explained again the value to the profession of the statistics. Dr. W. G. Campbell asked if the survey of medical costs in 1929 would be of any value. It was pointed out that this survey was not statistically comprehensive and there were no morbidity statistics.

It was moved by Dr. Digby Wheeler, seconded by Dr. A. S. Kobrinsky: THAT the Executive of the Manitoba Medical Association approve of this survey being carried out. —Carried.

Dr. Campbell asked for information about the survey. Dr. Moorhead read correspondence between himself and the President of The College of Physicians and Surgeons, Dr. W. H. Rennie. Dr. Musgrove pointed out that the survey will go on whether or not the profession takes part in it. If they do not take part the profession will have no access to the information. Dr. Campbell asked for more information. He was asked what information he required in addition to what had been already sent to the President of The College of Physicians and Surgeons.

Dr. Herbert suggested that the information might be obtained more cheaply. Dr. Wheeler pointed out that a trained statistician would be necessary to compile the statistics and that the merely gathering of figures was not enough.

The question of obtaining a contribution from the profession was then discussed. It was moved by Dr. A. S. Kobrinsky, seconded by Dr. E. W. Stewart: THAT the Executive of the Manitoba Medical Association should urge that The College

of Physicians and Surgeons of Manitoba should provide the necessary funds. —Carried.

It was moved by Dr. Digby Wheeler, seconded by Dr. S. G. Herbert: THAT the Executive of the Manitoba Medical Association guarantee $2,000.00 for this survey, $1,000.00 this year and $1,000.00 next year, if The College of Physicians and Surgeons of Manitoba do not provide the money. —Carried.

Dr. Campbell and Dr. Musgrove suggested that a letter be sent to The College of Physicians and Surgeons for each member of the Council, explaining the scope and purpose of the survey.

Unethical Rebates.

The Chairman asked the Secretary to read the notes. The secretary read resolution passed by the Committee on Sociology and approved by the Executive of the Manitoba Medical Association on May 5th, 1936; and also the correspondence with The College of Physicians and Surgeons, also the relevant excerpts from the minutes of the proceedings of the Council of the College of Physicians and Surgeons.

The Chairman then explained the course of events which had made it necessary to bring this matter to the attention of the Executive, while in reality it was a matter for the College of Physicians and Surgeons of Manitoba rather than the Manitoba Medical Association. It was explained that the problem involved the whole question of secret rebates on all surgical and medical supplies furnished to patients on the prescription of a practitioner. Dr. Herbert asked if it would be possible to stop this practice if it existed. Dr. Campbell explained the conversations which he had as Registrar of The College of Physicians and Surgeons, with the Eye, Ear, Nose and Throat Section of the Winnipeg Medical Society. It was asked if the College of Physicians and Surgeons had the legal power to get this necessary evidence in these cases.

The Chairman explained that in his opinion the matter was urgent. It was moved by Dr. Digby Wheeler, seconded by Dr. S. G. Herbert: THAT the allegation that some oculists receive rebates from optical manufacturers be again referred to the Council of The College of Physicians and Surgeons of Manitoba, with the request that they institute an investigation, and that they be advised of the new aspect of this question, and that on account of the urgency of the problem that they be asked to act as soon as possible, in order to protect the interests and reputation of the whole profession. —Carried.

"The doctor is the first person we meet when we come into the world, and, unless we go out by accident, he is the last with us when we leave it. Such devotion is worthy of the highest praise, and that is often all the doctor gets for it."—*Lampton.*

Department of Health and Public Welfare

NEWS ITEMS

Notes on Scarlet Fever

Scarlet fever is an acute communicable disease, belonging to the list of acute exanthemata. One attack usually confers immunity for life, although recurrences happen in about 1 per cent. of cases.

Occurrence. The disease is very widespread, and eventually attacks about 15 per cent. of the general population. The past few years have shown little decline in the incidence, and there has been an average of over 1,300 cases per year in Manitoba for the past six years.

Susceptibility. 75 per cent. of all cases occur under 10 years of age, and 90 per cent. under 15 years of age. The highest mortality occurs in the 2 to 4 age group, 50 per cent. of all deaths occurring under 5 years of age. The trend in recent years towards extremely mild infections has reduced the case fatality rate from 4 per cent. to less than 1 per cent.

Seasonal Distribution. The greatest incidence is usually in the months of January, February and March, the case rate gradually falling until August, when it commences to rise again.

Bacteriology. There may be three factors involved:

(a) Clinical symptoms are due to the toxins of Haemolytic Streptococci.

(b) More severe cases are caused by an invasion of the body tissues by Haemolytic Streptococci.

(c) Complications are due to an invasion of the body tissues by secondary infection, which is usually non-scarlatinal streptococci.

Types of Diseases.

(1) **Simple** Scarlet Fever—These cases greatly predominate.

(2) **Toxic** Scarlet Fever—In which the toxins predominate and affect the central nervous system and the myocardium. The patient is acutely ill, while the throat changes are of a minor character in contrast to the extreme clinical picture. The rash comes out brilliantly at first, but soon loses its lustre and becomes purplish or cyanotic, and petechial patches may appear. There is a drop in blood pressure, and marked changes in the heart sounds.

(3) **Septic** Scarlet Fever—Commences as a toxic case, but secondary invading organisms attack the throat and nares, causing a rash, swelling and purulent discharge. These cases usually run a prolonged course of 6 to 8 weeks, and have numerous complications. A secondary rash, of a erythematous blocky type, may develop.

(4) **Malignant** Scarlet Fever—Fortunately very rare. There is extremely high temperature, marked early throat involvement, the patient becomes delirious and death usually occurs within 72 hours.

Dissemination. Usually by direct contact with secretions of the nose and throat of the patient, occurring in the first week or ten days of the illness, as a rule. Infection may be carried by transference of discharges to eating utensils, towels, clothing, etc.; it may also be spread by infected milk. Unlike measles, scarlet fever may be communicable during the stage of convalescence in cases which continue to present discharges from the nose, throat and middle ear. There is no evidence that desquamating skin is infectious, unless it has become contaminated by discharges of the nose or throat.

Incubation Period. The greatest number of cases occur between the second and fifth day after exposure, although, on rare occasions, it may occur as early as 24 hours, or as late as 10 days.

Symptoms.

(1) **Period of Invasion**—The onset is sudden, with sore throat, nausea and vomiting, fever, general malaise and headache. There is no prodromal rash and, in the absence of an epidemic, the disease cannot be diagnosed in this stage. The sore throat is a marked feature, involving the whole throat, palate and back of the pharynx. There is pain on swallowing, due to beginning cervical adenitis. The nausea and vomiting are due to the presence of toxins of Haemolytic Streptococci, and are seldom present in acute tonsilitis. During this stage the tip and margins of the tongue become bright red in color.

(2) **Period of Eruption**—Usually reached in 36-48 hours. The rash generally begins on a line from the chin to the ear lobe, and spreads rapidly downwards to cover the entire body and proximal parts of the limbs, becoming most intense on the sides of the body and the inner surface of the thighs. When seen at a distance, it presents the characteristic reddish pink blush, but when examined closely, it is found to be a punctiform eruption, consisting of fine raised vesicles surrounded by an erythematous area. The rash is not always even, but may be patchy in color, petechial spots may occur along the anterior axilliary folds, and flexor staining may be present in the elbows and behind the knees. The typical rash does not involve the face, the cheeks being deeply flushed, with, usually, an area of circumoral pallor, and the eyes are bright and sparkling. The rash reaches its height in about 24 hours, and then fades gradually, leaving a dirty brown or yellowish hue to the skin.

In this stage, the **tongue** presents characteristic findings. Prominent papillae appear on the anterior third, while a heavily furred appearance is present on the posterior portion. From the fourth to the seventh day the tongue clears itself of the furred appearance and the papillae stand out like rose buds over practically the whole length. From the seventh to the tenth day, the papillae disappear, leaving a smooth glossy surface.

The **throat** presents a swollen congested appearance on both sides, and extending into the palate; a creamy exudate may be smeared over the tonsillar area, and a muco-purulent post nasal discharge is usually present. A watery discharge may exude from the anterior nares, which may become purulent if the disease is progressive.

Cervical **Adenitis** is also present in the acute stages as part of the clinical picture.

(3) **Period of Desquamation**—The earliest sign of desquamation, during the first 10 days, is a peculiar powdery appearance on the face and along the sides of the ear; a bran-like appearance on the forehead and sides of the chin. The characteristic stage of desquama-

tion comes in the 2nd to 4th weeks of the illness. Powdery scales are first seen on the neck, and the process continues downwards over the chest and back, where larger or smaller areas are thrown off. If examined closely, this desquamated skin is seen to be pin-hole or laciform in type, which characteristic is best observed from skin around the nail margins. The palms of the hand and soles of the feet are usually the last to desquamate and the skin here is cast off in large shreds.

Very Mild Cases. During the past few years there has been prevalent a type of scarlet fever in which the eruption is poorly marked and very transient. The temperature is but slightly elevated, though it may reach 101° or 102° for a short time. The pulse is apt to be much higher than the temperature would warrant. The throat involvement may be comparatively mild. Diagnosis in these cases is often difficult, unless scarlet fever is present in the district, but even in such mild cases, the eruption remains for at least 24 hours. Great care should be taken in these instances not to make a negative diagnosis, without future observation of the patient. As this is the type of case most responsible for the continued widespread prevalence of the disease, and as it is equally infectious as the more severe types, and as complications may often follow in its wake, it is the part of wisdom for any doctor called to a suspicious case in which diagnosis is doubtful, to first isolate the patient and follow up with close observation for several days. Usually, a definite decision may be reached within a week or ten days, and with these precautions, much unnecessary spread may be avoided.

Complications. These are many and varied, and the following are listed in the order of frequency or likelihood of accurrence:

1. **Adenitis**—May be simple or septic, and may cause continued rise of temperature at any stage. The glands become hard, tender and massed together; suppuration may occur deep down.

2. **Otitis Media**—May become chronic, discharging for 3 to 4 weeks.

3. **Mastoiditis**—Results from otitis media, if not properly drained. It is usually sub-acute and will not show any external signs. Continuing sclerosis of bone may produce deafness, or, if the condition is not relieved, lateral sinus thrombosis, or meningitis may develop.

4. **Sinusitis**—May be either maxilliary, frontal or ethmoidal, and may be responsible for a chronic nasal discharge which is infective.

5. **Peritonsillitis** or acute tonsilitis associated with peritonsillar abcess may occur during convalescence.

6. **Retro-pharyngeal Abcess** may occur, due to infected chain of lymphatitis.

7. **Arthritis**—May take any one of these forms:

   (a) **Simple**—due to toxins—occurs in first 2 or 3 weeks: causes pain and limitation of movement in joints, most frequently affecting the hands and feet.

   (b) **Acute**—Bacterial in origin, probably due to streptococcus of scarlet fever. It similates the picture of rheumatic fever and may be accompanied by cardiac involvement. These two forms may follow on to a chronic arthritis.

   (c) **Septic**—Occurs after the 3rd week; one or more joints may be involved and, usually, surgical treatment is necessary.

8. **Heart**—During the first two weeks the toxins produce a cloudy swelling in the myocardium, associated with fatty infiltration. In more acute forms of the disease there may be fatty degeneration. For this reason patients should always be kept in bed for a period of 2-3 weeks, and normal activities resumed only gradually. A definite **myocarditis,** toxic in origin, may occur both early and late. If early (1-10 days) it is usually transient, but if late (3 to 5 weeks) there may be permanant damage. These conditions are not inflammatory and should not be confused with an **endocarditis** caused by a bacterial invasion of the heart, which may occur during convalescence.

9. **Nervous System** — These complications are usually central in character, and due to the extension of infection from some other complication, such as mastoiditis, etc. During the early invasive period the toxins may act, causing convulsions in children and delirium in adults.

10. **Kidneys**—A transient albuminuria is characteristic, which may go on to nephritis, but the frequency of acute nephritis is not high.

11. **Pneumonia** develops only rarely, accompanied by a streptococcal empyema.

Treatment. The only points in this connection which will be mentioned are the importance of insisting on bed rest for three weeks from onset, or until the probable time of occurrence of late complications has passed; and the use of scarlet fever antitoxin in severe cases. It is now recognized that scarlet fever antitoxin administered during the early stages of the disease, will materially shorten the duration of the acute symptoms, and lessen the frequency of complications. It should, however, always be used with some precaution. Due to its foreign protein content, some patients, particularly those with a history of asthma or hay fever, may develop serious reactions of an anaphylactic character. It is advisable, in all cases, therefore, to submit the patient to a sensitivity test previous to the use of the antitoxin, and in those who react, desensitization may be carried out. No treatment with antitoxin should be administered without having 1:1000 adrenalin at hand in case of anaphylaxis.

Prevention. The use of scarlet fever antitoxin as a prophylactic is not generally advised. It is given only to those susceptibles who have been intimately exposed, and are to be removed at once from contact, as the passive immunity thus established only lasts from 5 to 10 days. To be effective at all, it must be given as soon as possible after exposure, for it is inadequate in the late stages of the incubation period. It should be borne in mind also, that such a patient, once he has received a prophylactic dose of antitoxin, is very likely to have a severe reaction to a treatment dose, should he subsequently develop scarlet fever in a short time. It is important, therefore, in all such cases to follow up this initial dose of antitoxin with the regular course of scarlet fever toxin for the production of an active immunity. This toxin contains no foreign protein and will, therefore, not sensitize an individual to antitoxin or other horse serum.

The use of scarlet fever toxin is of undoubted value in the control of epidemic scarlet fever. It is usually administered in 1 c.c. doses at intervals of 7 to 14 days, for 5 doses of increasing strength. This will result in immunity in about 75 per cent. of cases. In order to ensure complete immunity, it is advocated that Dick testing be done six weeks to two months after the fifth dose, and those still reacting positively be given a sixth dose of the toxin, which can be obtained from the Department in separate packages for this purpose. In cases where it is not feasible to do an interval Dick test, the course may be extended to six doses at the time, in order to ensure, as far as possible, complete immunity being conferred.

Public Health Regulations. Experience everywhere has shown the importance of carrying out the provisions for isolation, quarantine and other instructions, in every case, however mild, as outlined in the Consolidated Regulations under the Public Health Act. It is in the interests of the greatest good that these instructions be rigidly adhered to on the part of the few, rather than that the disease should become widespread through the careless contact of infected persons.

—M. R. E.

COMMUNICABLE DISEASES REPORTED

Urban and Rural - January, 1938.

Occurring in the Municipalities of:

Chickenpox: Total 262—Winnipeg 220, Brandon 10, St. Boniface 5, St. James 5, Kildonan West 4, The Pas 4, Selkirk 3, Brooklands 2, Melita 2, St. Clements 2, Unorganized 2, Arthur 1, Brenda 1, Hanover 1.

Measles: Total 196—Portage City 111, Portage Rural 74, Winnipeg 4, Shoal Lake Rural 2, Flin Flon 1, Franklin 1, LaBroquerie 1, Montcalm 1, St. Anne 1.

Mumps: Total 167—Brandon 74, Winnipeg 59, Unorganized 27, Fort Garry 3, Dauphin Town 1, Kildonan East 1, Morton 1, Silver Creek 1.

Scarlet Fever: Total 151—Winnipeg 43, Whitehead 33, Fort Garry 9, Edward 7, Brandon 6, Melita 6, St. Paul East 6, Swan River Town 4, Albert 3, Arthur 3, Bifrost 3, Kildonan West 3, Souris 3, Unorganized 3, Minitonas 2, Shell River 2, Springfield 2, The Pas 2, Flin Flon 1, Gimli Rural 1, Hanover 1, Kildonan East 1, Lakeview 1, Portage City 1, Rhineland 1, Roblin Town 1, Sifton 1, St. James 1, Woodlea 1.

Whooping Cough: Total 48—Flin Flon 14, Winnipeg 12, Brandon 6, Portage Rural 6, Hanover 3, St. Boniface 2, Brooklands 2, Fort Garry 1, Portage City 1, Unorganized 1.

Diphtheria: Total 10—Montcalm 3, Winnipeg 3, Brokenhead 2, Fort Garry 1, Kildonan East 1.

Tuberculosis: Total 10—Winnipeg 7, Dauphin Town 1, Lac du Bonnet 1, Shell River 1.

Erysipelas: Total 5—Winnipeg 2, St. James 1, St. Vital 1, Portage City 1.

Influenza: Total 3—Winnipeg 3.

Typhoid Fever: Total 2—Portage Rural 1, Shell River 1.

Cerebrospinal Meningitis: Total 1—St. Vital 1.

German Measles: Total 1—Rosser 1.

Venereal Disease Report: Total 113—Gonorrhoea 66, Syphilis 47.

DEATHS FROM ALL CAUSES IN MANITOBA

For the Month of December, 1937.

URBAN—Cancer 33, Pneumonia 19, Tuberculosis 6, Whooping Cough 1, Syphilis 2, all others under 1 year 6, all other causes 162, Stillbirths 14. Total 243.

RURAL—Cancer 31, Pneumonia 21, Tuberculosis 16, Influenza 5, Whooping Cough 3, Syphilis 2, Measles 1, Scarlet Fever 1, Puerperal Septicaemia 1, Typhoid Fever 1, Erysipelas 1, all others under 1 year 3, all other causes 185, Stillbirths 27. Total 298.

INDIAN—Tuberculosis 16, Pneumonia 6, Influenza 1, Diarrhoea 1, Syphilis 1, all others under 1 year 1, all other causes 15, Stillbirths 4. Total 45.